



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D4038-11**  
**Job Sheet 196431**



Part No: D4038-11

Job Qty: 4 pcs *12*

Part Name: Block



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 6/13/19

Job Tracking No:

Due Date: ~~7/12/19~~ *July 30*

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG D4038 REV:F SHEET 13 lpp Rev:A New Issue 09-12-14 JLM Verified By:EC IPP REV:B 18.02.08 AS  
PER DWG REV:F DD VERF:DP

Ship Via:

## Bill of Materials

## Job Routing

| Op No | Operation         | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off             |
|-------|-------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------------------|
|       |                   |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |                      |
| 100   | Bandsaw - 1       | 4 pcs | 7/12/19    | 7/12/19  | 0.00      | 0.10    | Bandsaw - 1           |           | <i>mm L 11/07/09</i> |
| 105   | HAAS 4 Axis - B4B | 4 pcs | 7/12/19    | 7/12/19  | 0.50      | 1.20    | HAAS - 1 - B4B        |           | <i>mm L 19/07/09</i> |
|       |                   |       |            |          |           |         | HAAS - 2 - B4B        |           |                      |
|       |                   |       |            |          |           |         | HAAS - 3 - B4B        |           |                      |
|       |                   |       |            |          |           |         | HAAS - 4 - B4B        |           |                      |
| 110   | QC 2              | 4 pcs | 7/12/19    | 7/12/19  | 0.00      | 0.00    | QC 2 - 1              |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 12             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 14             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 17             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 19             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 2              |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 20             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 22             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 23             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 25             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 32             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 33             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 35             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 39             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 4              |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 40             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 44             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 45             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 48             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 49             |           | <i>mm L 19/07/09</i> |
|       |                   |       |            |          |           |         | QC 2 - 50             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 51             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 52             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 57             |           |                      |
|       |                   |       |            |          |           |         | QC 2 - 62             |           |                      |



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1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

Container No: S196590



Part: D4038-11

Job No: 196431

Serial No/Batch: S196590

Revision: F

Inspector:

Exp Date:

Instructions: Various STC's

Date: 07/09/19

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|                                 |       |         |           |  |                           |  |
|---------------------------------|-------|---------|-----------|--|---------------------------|--|
|                                 |       |         |           |  | Handfinish - 1 - 19 - B4B |  |
|                                 |       |         |           |  | Handfinish - 1 - 20 - B4B |  |
|                                 |       |         |           |  | Handfinish - 1 - 21 - B4B |  |
|                                 |       |         |           |  | Handfinish - 1 - 22 - B4B |  |
| 150 QC 7                        | 4 pcs | 7/12/19 | 0.00 0.00 |  | QC 7 - 10                 |  |
|                                 |       |         |           |  | QC 7 - 13                 |  |
|                                 |       |         |           |  | QC 7 - 14                 |  |
|                                 |       |         |           |  | QC 7 - 15                 |  |
|                                 |       |         |           |  | QC 7 - 17                 |  |
|                                 |       |         |           |  | QC 7 - 18                 |  |
|                                 |       |         |           |  | QC 7 - 19                 |  |
|                                 |       |         |           |  | QC 7 - 2                  |  |
|                                 |       |         |           |  | QC 7 - 28                 |  |
|                                 |       |         |           |  | QC 7 - 3                  |  |
|                                 |       |         |           |  | QC 7 - 30                 |  |
|                                 |       |         |           |  | QC 7 - 34                 |  |
|                                 |       |         |           |  | QC 7 - 36                 |  |
|                                 |       |         |           |  | QC 7 - 37                 |  |
|                                 |       |         |           |  | QC 7 - 41                 |  |
|                                 |       |         |           |  | QC 7 - 47                 |  |
|                                 |       |         |           |  | QC 7 - 48                 |  |
|                                 |       |         |           |  | QC 7 - 51                 |  |
|                                 |       |         |           |  | QC 7 - 58                 |  |
|                                 |       |         |           |  | QC 7 - 59                 |  |
|                                 |       |         |           |  | QC 7 - 60                 |  |
|                                 |       |         |           |  | QC 7 - 9                  |  |
|                                 |       |         |           |  | QC 7 - 68                 |  |
|                                 |       |         |           |  | QC 7 - 50                 |  |
|                                 |       |         |           |  | QC 7 - 67                 |  |
|                                 |       |         |           |  | QC 7 - 40                 |  |
|                                 |       |         |           |  | QC 7 - 24                 |  |
|                                 |       |         |           |  | QC 7 - 43                 |  |
| 160 Packaging 3-1 - Stock - B4B | 4 pcs | 7/12/19 | 0.00 0.00 |  | Packaging 3 - 1 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 2 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 3 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 4 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 5 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 6 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 7 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 8 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 9 - B4B     |  |
|                                 |       |         |           |  | Packaging 3 - 10 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 11 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 12 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 13 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 14 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 15 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 16 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 17 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 18 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 19 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 20 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 21 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 22 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 23 - B4B    |  |
|                                 |       |         |           |  | Packaging 3 - 24 - B4B    |  |

DAS  
31  
9-89

JUL 10 2019

Pc 070

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  |                        |                    |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 25 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 26 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 27 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 28 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 29 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 30 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 31 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 32 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 33 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 34 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 35 - B4B |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | Packaging 3 - 36 - B4B |                    |
| 170 QC 21 - SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4<br>pcs                | 7/12/19            | 0.00 0.00        | QC 21 - SA - 21        | DAG 21 JUL 10 2019 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | QC 21 - SA - 70        | 21                 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                    |                  | QC 21 - SA - 53        | 9-85               |
| Part Op <b>100</b> - (Bandsaw) CUT BLANK 2.00" LONG<br>Descriptions: <b>105</b> - (HAAS CNC Vertical Machine) Mill as per Dwg and Folio FA886<br><b>110</b> - (QC2- Inspect parts off machine FAI/FAIB)<br><b>120</b> - (QC8- Inspect parts - second check)<br><b>130</b> - (Chemical Conversion Coat per QSI005 4.1)<br><b>150</b> - (QC7- Inspect Chemical Conversion Coat)<br><b>160</b> - (Identify as per dwg & Stock Location: _____)<br><b>170</b> - (QC21- Final Inspection - Work Order Release) |                         |                    |                  |                        |                    |
| <b>Job BOM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                    |                  |                        |                    |
| <b>Part / Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Component Name</b>   | <b>Quantity</b>    | <b>Operation</b> | <b>Container</b>       |                    |
| M6061T6B1.500X2.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 6061-T6 Bar 1.50 X 2.00 | .6640 ft (.166 ea) | 100-Bandsaw - 1  | 5181992                |                    |
| <b>Job Allocations</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                         |                    |                  |                        |                    |
| <b>Operation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Component Part</b>   | <b>Required</b>    | <b>Inventory</b> | <b>Allocated</b>       |                    |
| 100-Bandsaw - 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M6061T6B1.500X2.000     | 1                  | 8                | 0                      |                    |
| <b>Part Specifications</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                         |                    |                  |                        |                    |
| Specifications could not be found.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                    |                  |                        |                    |

MAT  
used  
2.050

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Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |